

Work Order ID 71017

Tuesday, June 21, 2011 8:54:04 AM



Page 1

Item ID: D3407-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Stem

Start Date: 6/21/2011 Start Qty: 12.00



Cust Item ID:

Required Date: 6/23/2011 Req'd Qty: 12.00



Customer:

Reference:

Approvals:

Process Plan:

[Signature]

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3407

Rev E

100

0.00



DOOSAN LATHE

Doosan

Memo

0.00

Doosan Lathe

1-Turn as per Folio FA596 Rev: AA & Dwg D3407 Rev: E ☐ 2-Deburr

20 11.6.22 12

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

20 11.6.22 12

120

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

20 11.6.22 12

Work Order ID 71017

Tuesday, June 21, 2011 8:54:04 AM



Page 2

Item ID: D3407-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Stem

Start Date: 6/21/2011 Start Qty: 12.00



Cust Item ID:

Required Date: 6/23/2011 Req'd Qty: 12.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

Identify as per dwg & Stock Location: WA

0.00



Packaging

Memo

0.00

Packaging

120 11/6/22

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/6/23
ME
11-06-23

Picklist Print

Tuesday, June 21, 2011 8:54:01 AM

Page 1

Work Order ID: 71017



Parent Item: D3407-1



Parent Item Name: Stem


Start Date: 6/21/2011

Required Date: 6/23/2011

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP Rev:A 05.10.18 New issue KJ/EC
IPP Rev:B Now on Doosan 08-05-14 JLM Verified By:DD
IPP Rev:C 08-08-12 revE as per dwg (ecn 08-507) DD verified by:EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|--|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M174R0.750  17-4 round bar .750 | | Purchased | No | | | 100 | f | 17.9750 | 0.366 | 4.623158 | | | |



2 11.6.22

Location

MAT030

117683

Loc Qty

17.975

17.975

Loc Code

8.47

| | | |
|------------------------------|---------------|-----------------------------|
| DART AEROSPACE LTD | | Work Order: 7107 |
| Description: Tow Ring | | Part Number: D3407-1 |
| Inspection Dwg: D3407 | Rev: E | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

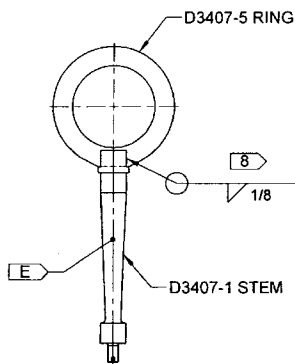
☒ First Article ☐ Prototype

| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|-------------------|----------------------------|------------------|--------|--------|----------------------|----------|
| 0.063 | +/-0.010 | .063 | / | | Rq. 02 | |
| 1/4-28 UNF | Max: 0.2668 Min: 0.2635 | .2655 | / | | Rq. 02 | |
| Major Ø | Max: 0.249 Min: 0.2425 | .246 | / | | " | |
| Ø0.625 | +/-0.010 | .626 | / | | Rq. 02 | |
| Ø0.363 | +/-0.010 | .366 | / | | | |
| Ø0.750 | +/-0.010 | .749 | / | | | |
| R0.100 | +/-0.010 | R.100 | / | | | |
| 0.470 | +/-0.010 | .468 | / | | | |
| 0.500 | +/-0.010 | .502 | / | | | |
| 3.250 | +/-0.010 | 3.250 | / | | | |
| 4.250 | +0.000/-0.010 | 4.248 | / | | | |
| 5.270 | +/-0.010 | 5.265 | / | | | |
| 0.150 | +/-0.010 | .151 | / | | | |
| 0.550 | +/-0.010 | .550 | / | | | |
| 0.625 | +/-0.010 | .623 | / | | | |
| 0.250 | +0.010/-0.000 | .252 | / | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

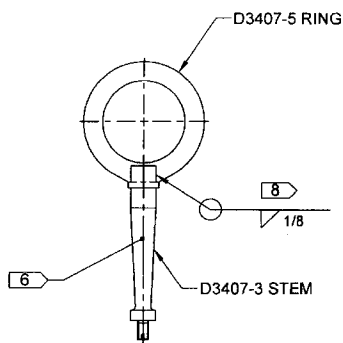
| | | | |
|------------------------|-----------------------|----------------------------|-----|
| Measured by: Rq | Audited by: SA | Prototype Approval: | N/A |
| Date: 11.6.22 | Date: 11/6/22 | Date: | N/A |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|---|------------|----------|
| A | 06.09.19 | New Issue | KJ/JLM | |
| B | 07.07.18 | Tolerances for diameters updated per Machinists | KJ/JLM | |
| C | 08.05.14 | Dimensions updated per Dwg Rev D | KJ/JLM | |
| D | 08.10.07 | Dimensions updated per Dwg Rev E | KJ/DD | DA |

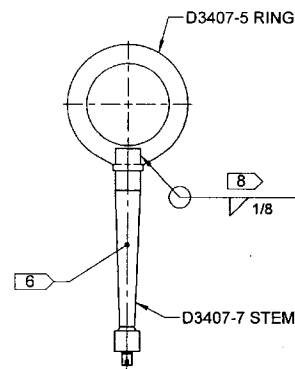
| QTY -041 | QTY -043 | QTY -045 | PART NUMBER | DESCRIPTION |
|-------------|-------------|-------------|-------------|-------------|
| X | | | D3407-041 | TOW RING |
| | X | | D3407-043 | TOW RING |
| | | X | D3407-045 | TOW RING |
| 1 | | | D3407-1 | STEM |
| | 1 | | D3407-3 | STEM |
| 1 | 1 | 1 | D3407-5 | RING |
| | | 1 | D3407-7 | STEM |



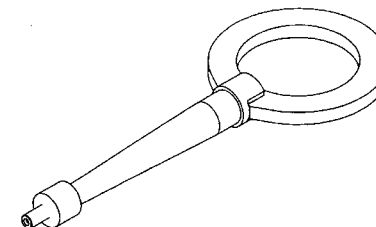
D3407-041 TOW RING



D3407-043 TOW RING



D3407-045 TOW RING



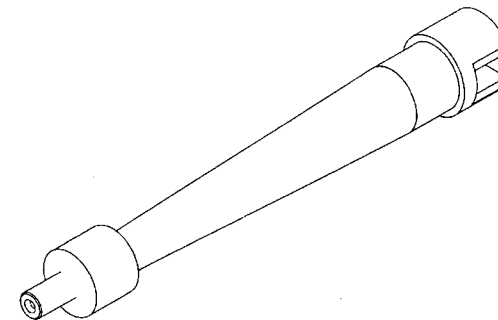
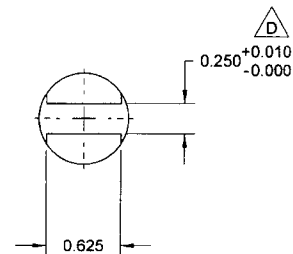
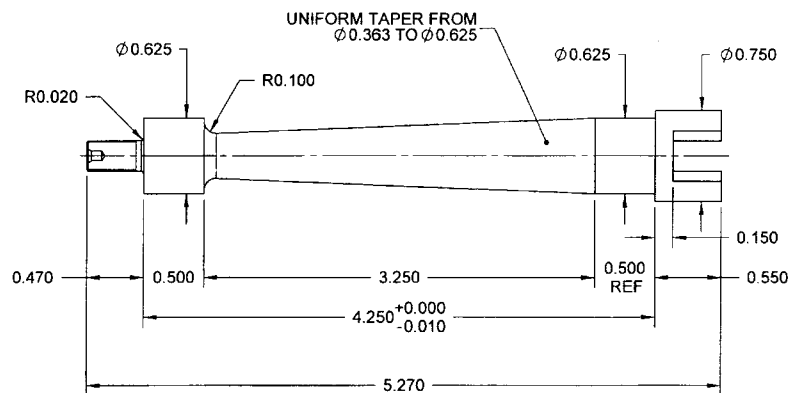
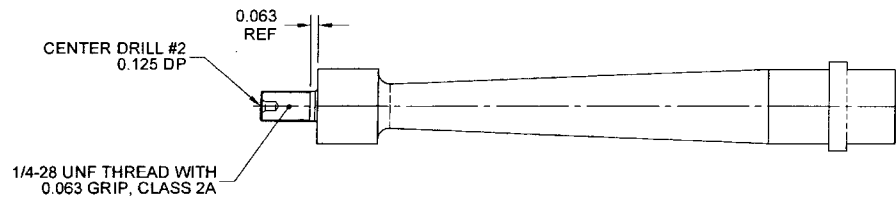
RELEASED

7107

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 (EXCEPT THREADS)
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3407-XXX" USING BLACK FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: D3407-041 - 0.60 lbs, D3407-043 - 0.53 lbs, D3407-045 - 0.61 lbs
- 8) WELD PER DART QSI 004 ON ALL EDGES BETWEEN STEM AND RING

| | | | |
|--|--|----|----------|
| E | ADD D3407-045 (ZN B2-1, D8-1); ADD D3407-7 (ZN B6-5); REVISED NOTE 6 TO ADD IDENTIFICATION (ZN A5-1); REASON: PRODUCTION FACILITY | PH | 08.07.23 |
| D | D3407-1/-3 SLOT WAS ROUND NOW FLAT FOR ASSEMBLY WITH D3407-5 (ZN C2-2, C2-3); D3407-5 WAS ROUND NOW FLAT ON ONE END FOR ASSEMBLY WITH D3407-1/-3 (ZN B6-4); REASON: PRODUCTION FACILITY | PH | 08.04.07 |
| C | -1/-3 LONGER FOR FIT W/WASHER | CP | 05.09.09 |
| B | UPDATE DIAMETER, THREAD CLASS ADDED | CP | 05.06.17 |
| A | NEW ISSUE | CP | 05.03.16 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | | | |
| DRAWN | | | |
| CHECKED | | | |
| MFG. APPR. | | | |
| APPROVED | | | |
| DE APPR. | | | |
| DATE | 08.07.23 | | |
| DART AEROSPACE USA, INC. PORT HADLOCK, WA DRAWING NO. D3407 TITLE TOW RING REV. E SHEET 1 OF 5 SCALE NTS <small>COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small> | | | |



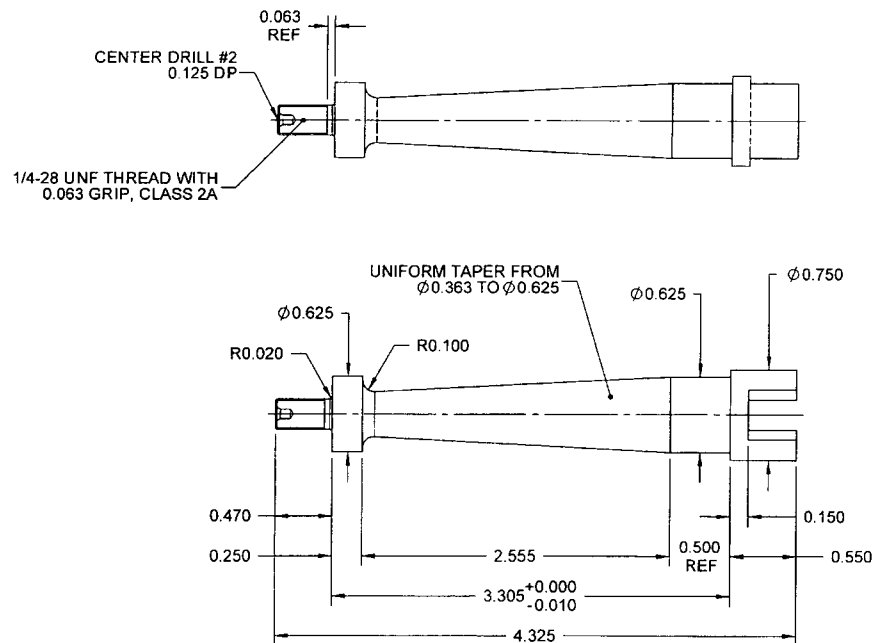
D3407-1 STEM

RELEASED

NOTES:

- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.33 lbs

| | | | |
|------------|----------|---|--------------|
| DESIGN | | DART AEROSPACE USA, INC. | |
| DRAWN | | PORT HADLOCK, WA | |
| CHECKED | | DRAWING NO. | REV. E |
| MFG. APPR. | | D3407 | SHEET 2 OF 5 |
| APPROVED | | TITLE | SCALE |
| DE APPR. | | TOW RING | NTS |
| DATE | 08.07.23 | <small>COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small> | |

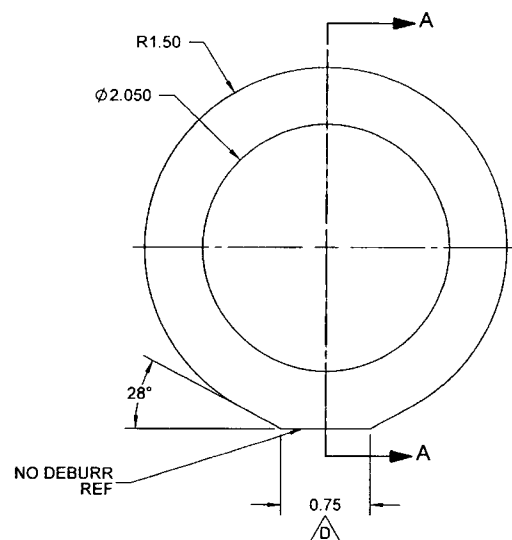


D3407-3 STEM

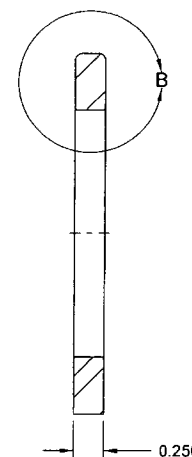
- NOTES:**
- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 0.27 lbs

RELEASED

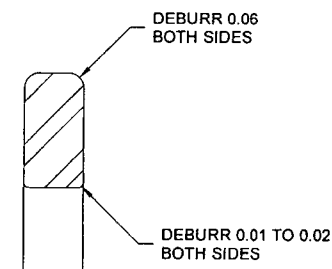
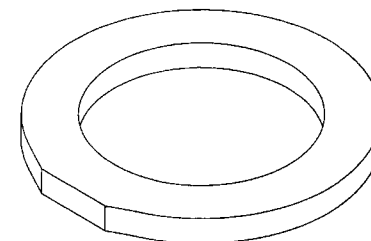
| | | | |
|------------|----------|---|--------------|
| DESIGN | | DART AEROSPACE USA, INC. | |
| DRAWN | | PORT HADLOCK, WA | |
| CHECKED | | DRAWING NO. | REV. E |
| MFG. APPR. | | D3407 | SHEET 3 OF 5 |
| APPROVED | | TITLE | SCALE |
| DE APPR. | | TOW RING | NTS |
| DATE | 08.07.23 | <small>COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small> | |



D3407-5 RING



SECTION A-A






DETAIL B
SCALE 2X

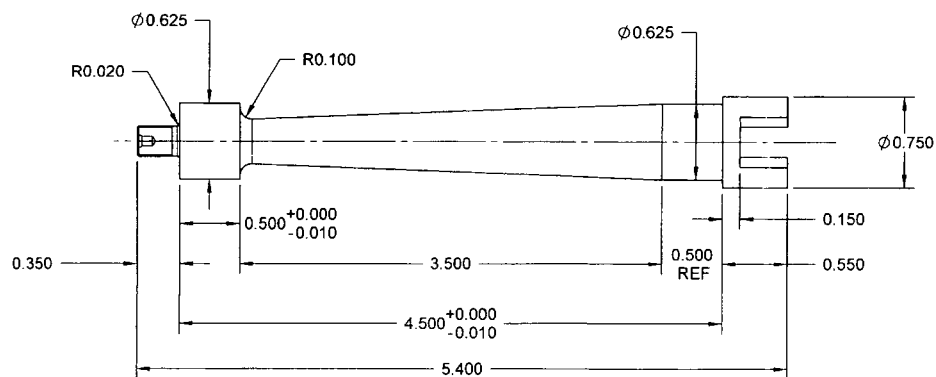
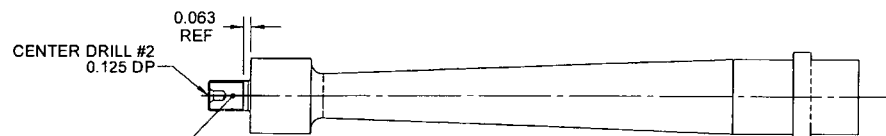
RELEASED
06.08.01.14


- NOTES:**
- 1) MATERIAL: 17-4 PH SS BAR PER AMS 5604/5643 (REF. DART SPEC M17-4-B)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: N/A
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 0.27 lbs

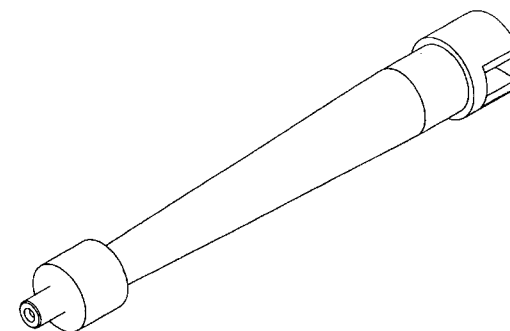
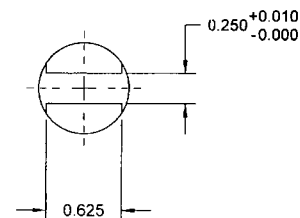
7107

| | | | |
|------------|---|---|--------------|
| DESIGN | 97 | DART AEROSPACE USA, INC. | |
| DRAWN | Per | PORT HADLOCK, WA | |
| CHECKED | | DRAWING NO. | REV. E |
| MFG. APPR. |  | D3407 | SHEET 4 OF 5 |
| APPROVED |  | TITLE | SCALE |
| DE APPR. |  | TOW RING | NTS |
| DATE | 08.07.23 | COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMPARISON TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. | |

8 7 6 5 4 3 2 1



 **D3407-7 STEM**



7107

- NOTES:
- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 0.34 lbs

RELEASED
08-07-23

| | | | |
|------------|--------------------|--|--------------|
| DESIGN | AJS | DART AEROSPACE USA, INC. | |
| DRAWN | <i>JP</i> | PORT HADLOCK, WA | |
| CHECKED | | DRAWING NO. | REV. E |
| MFG. APPR. | <i>[Signature]</i> | D3407 | SHEET 5 OF 5 |
| APPROVED | <i>[Signature]</i> | TITLE | SCALE |
| DE APPR. | <i>[Signature]</i> | TOW RING | NTS |
| DATE | 08.07.23 | COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small> | |

8 7 6 5 4 3 2 1